

Applicants: Philip O. Livingston and Friedhelm Helling
 Serial No.: 08/196,154
 Filed : November 16, 1995

Page 2

In the Claims

Please amend claims 97, 111, and 113 as follows.

A marked-up version of the amended claims, wherein the deleted material is in brackets and the inserted material is underlined, is attached hereto as Exhibit A.

--97. (twice amended) A composition which comprises:

a) a conjugate of i) a GM2 ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, and ii) Keyhole Limpet Hemocyanin, comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in a subject, wherein in the conjugate the ganglioside derivative is covalently bound to Keyhole Limpet Hemocyanin through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH₂ group.

Sub
I

H¹

Applicants: Philip O. Livingston and Friedhelm Helling
Serial No.: 08/196,154
Filed : November 16, 1995
Page 3

-111. (twice amended) A method of stimulating or enhancing antibody production is a subject which comprises administering to the subject an effective amount of a composition which comprises:

a) a conjugate of i) a GM2 ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in the subject,

wherein in the conjugate the ganglioside derivative is covalently bound to Keyhole Limpet Hemocyanin through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH_2 group, so as to thereby stimulate or enhance antibody production in the subject.

Ab
I₂

H/2

Applicants: Philip O. Livingston and Friedhelm Helling
Serial No.: 08/196,154
Filed : November 16, 1995
Page 4

113. (Twice amended) A method of treating a cancer in a subject which comprises administering to the subject an effective cancer treating amount of a composition which comprises:

a) a conjugate of i) a GM2 ganglioside derivative which comprises an unaltered ogliosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

H³ sub I 3
the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in a subject, wherein in the conjugate the ganglioside derivative is covalently bound to Keyhole Limpet Hemocyanin through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin, wherein the C-4 carbon is present in a CH₂ group, so as to thereby treat the cancer in the subject.

Please cancel claims 98 and 99 without prejudice.